“ ESG ” 2022

2022 1 1 2022 12 31

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—— (GSSB)GRI
(TCFD)

ESG

ESG
(GB/T2589-2020)
(GB/T 26719-2022) [2011]8 (2021)

ESG ESG
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IV

PDF PDF
(www.csec.com www.shenhuachina.com)
ir@csec.com 86-10-5813-3355/3399

2022

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2022 ESG 2023 3 24

2004 11 8 A+H

H A 2005 6 15 2007 10 9

2022 6,217 752

83,029

2022

3,445.33

2.6%

3.504 /

39.0%

1,097.34

16.3%

3.46 8%

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4,030

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60 /

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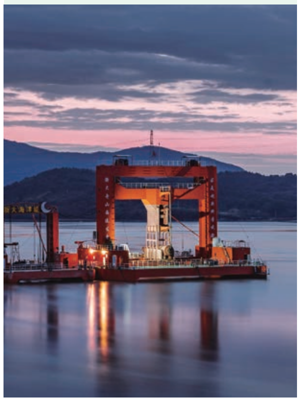

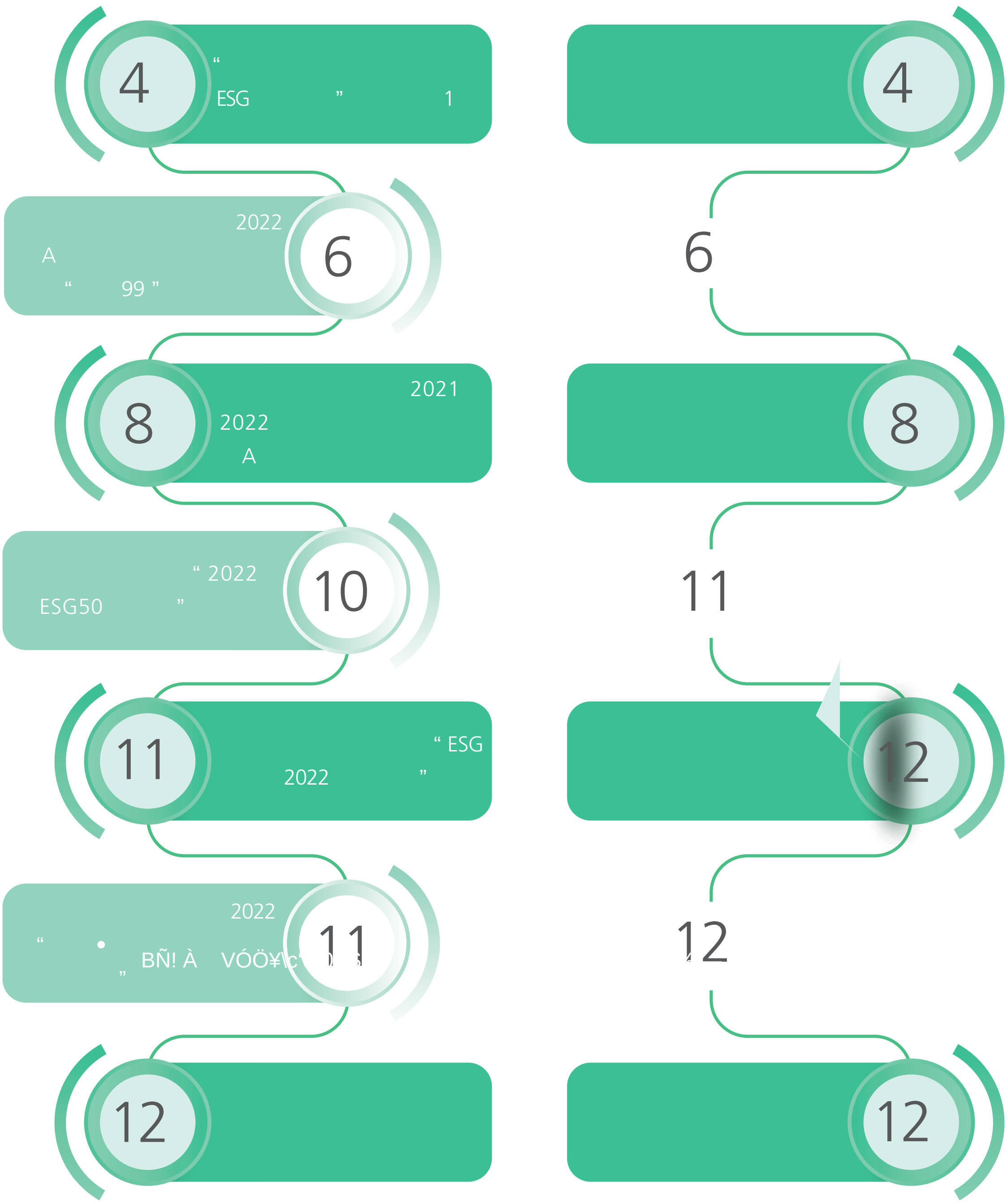
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中国神华2022年
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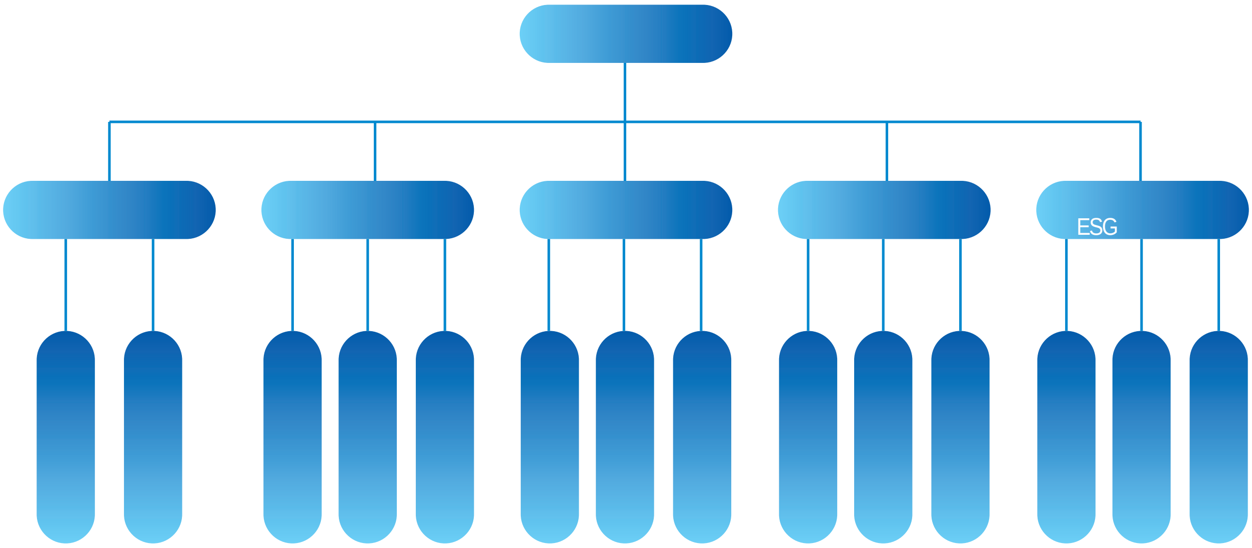

2022 8 5
78 56 2
96.6% 22
67 2
4 14
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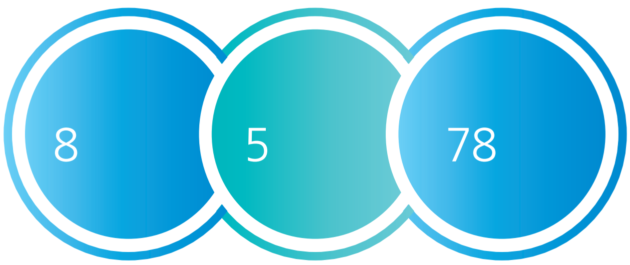

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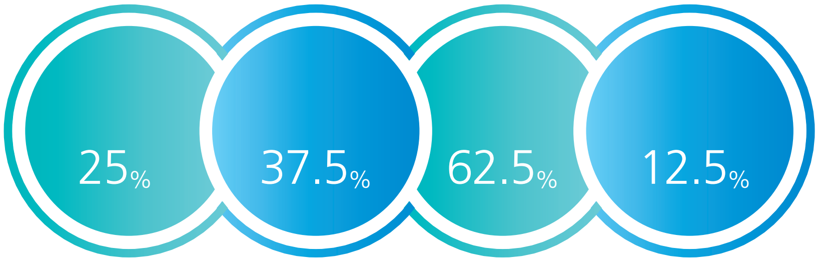

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A+H

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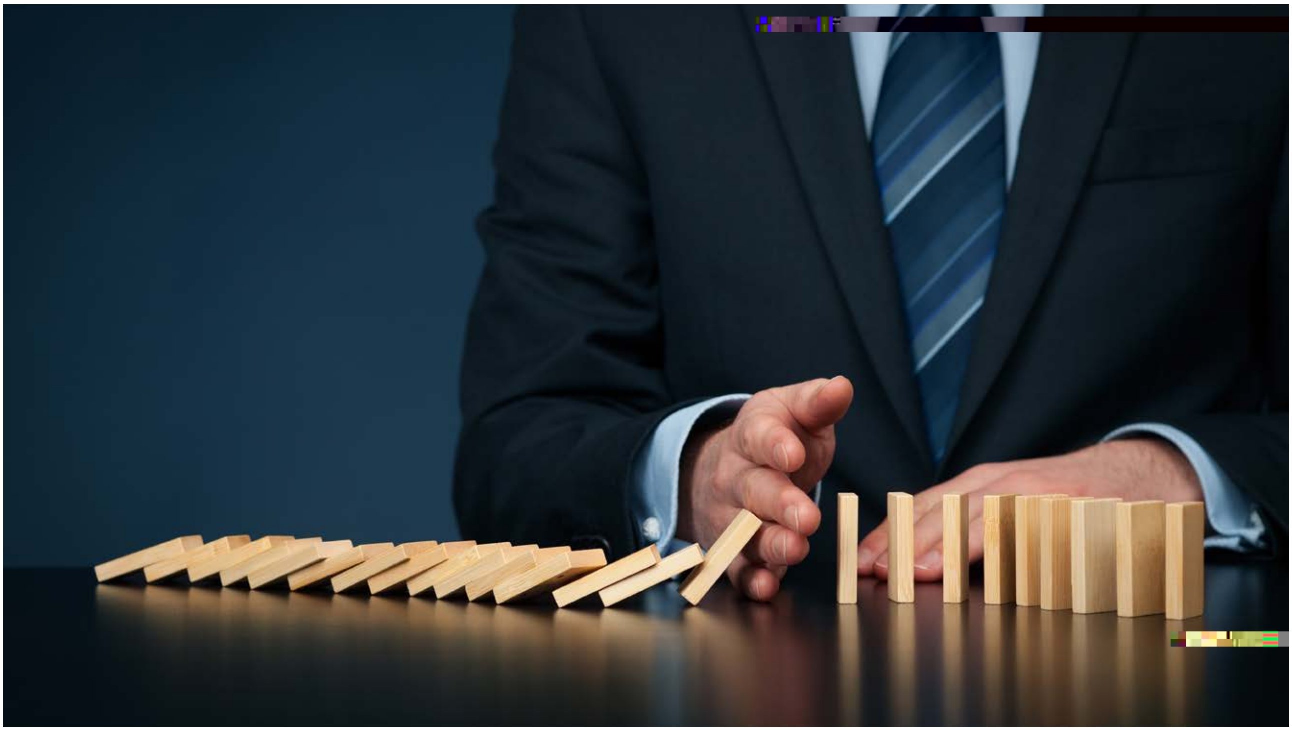
23 “ ” “ 3456 ”

15

2022

				(%)
	10	15	85	100
	5	15	32	100
	9	15	101	100
	2,730	241	25,755	79.9
	61,619	290	370,859	77.4
	1,805	28	2,599	–

2022



2022

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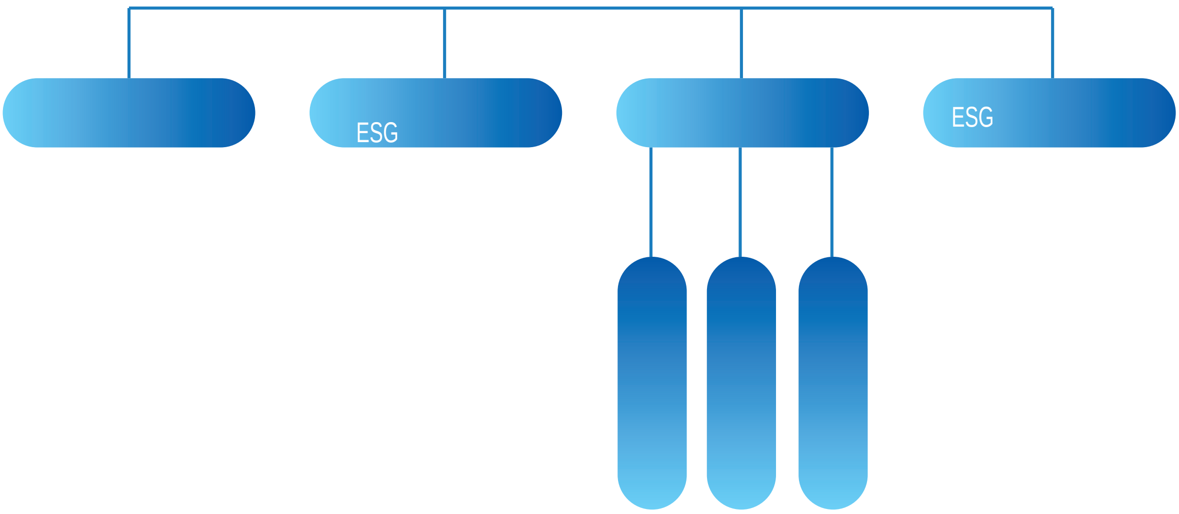
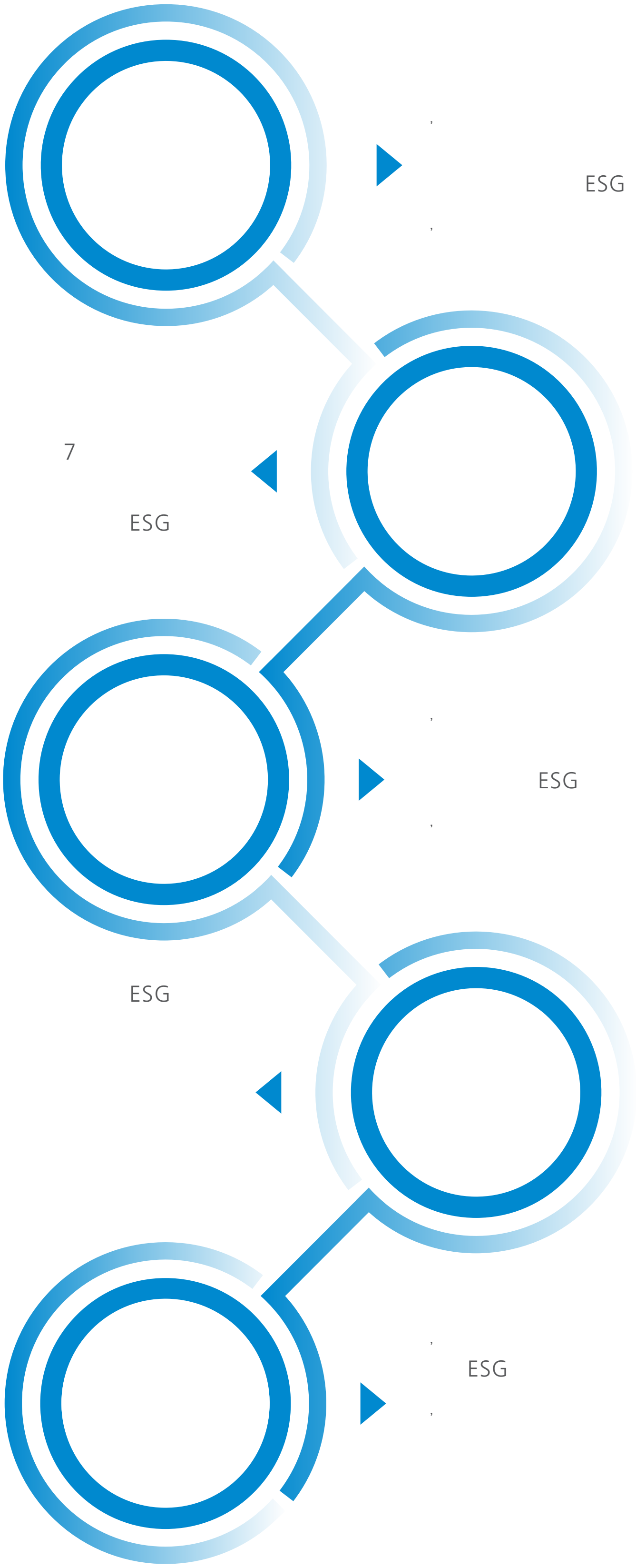


ESG

2022 ESG



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2022 ESG 30%

ESG

2020-2025

					2022 2020
		2030			30.8%
	COD	2020	2025	4%	12.8%
	SO_2	2020	2025	2%	
	NO_x	2020	2025	2%	14.3%
		2020	2025	3%	23.1%
		2020	2025	5	22
		2020	2025	0.8%	13.4%
		2020	2025	1%	3.3%
		2020	2025	5	0.69

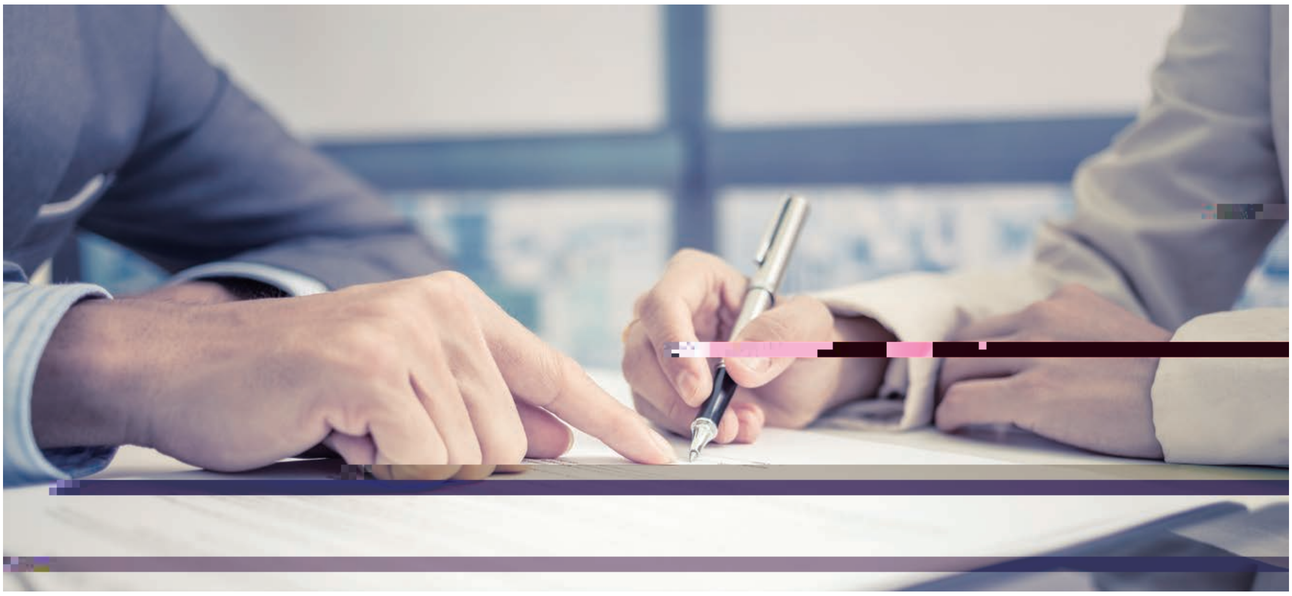
2022 68 1,600 e
122

3 ESG

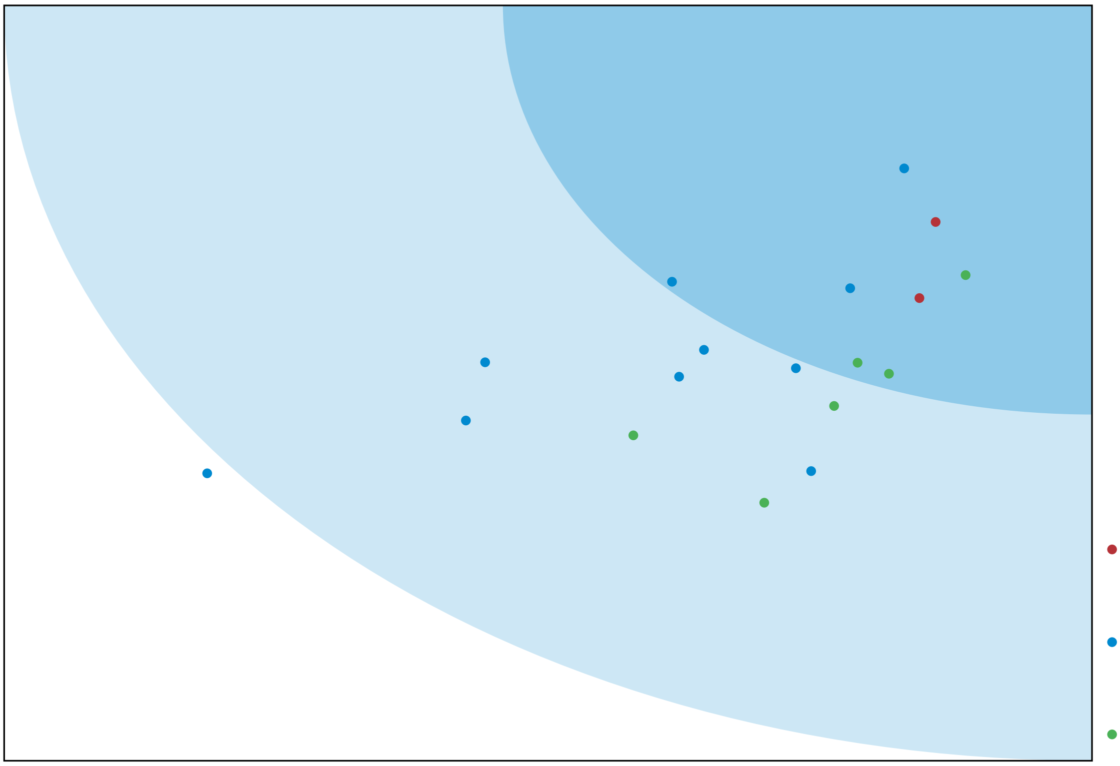
2022 ESG

ESG

2022 ESG



2022 ESG




喜迎二十大 奋进新征程


617
国家能源集团
国内首台大功率氢能源调车机车试验运行
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“ ”“ ”

(FSB)

(TCFD)

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	ESG
	TCFD

RCP2.6 SSP1 2050

(IEA) SSP3

	2040 1.6 2 [1]	2040 1.6 3.9 [2]
	2030 25% [3]	17.3%[4]
	2030 2005 65% [5]	2030
[6]	2030 77-139	2030 49

[1] The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500

[2] SSP3: AIM implementation of Shared Socioeconomic Pathways

[3] 2021 2030

[4] 2022 2022

[5] 2021 2030

[6] 2021

ESG

2022 Ŧ ĸ Ƀ

“ ”

2022

2030 2060

			2030
	2020	2022	
CO_2	13,490	17,640	70%
CO_2 /	5.78	5.10	6%

200 2021-2030

1%

ESG “

”

2022

[1]	2020	2021	2022
CO_2	13,490	15,861	17,640
CO_2	12,668	15,333	17,239
CO_2	822	528	401
CO_2 /	5.78	4.73	5.10

1. 2021 2021

2021 2020 2021

2022

2022

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9.6%

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23.3g/kWh 14

· 6,000

1.9

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37

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24.4

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· 15

807 1,982

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2022 11 “
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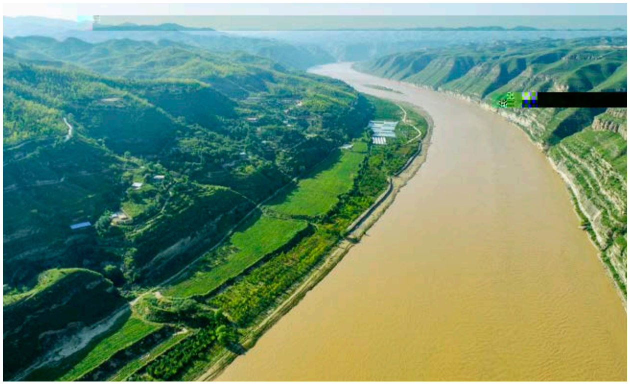
2022 153.2 0.82

2022 CCUS

CCUS

500 CCUS
2022
99.5% 4.3
5.5
50
CCUS

2022 4,545 18.5



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2022 36

78

2022 19 ISO14001

13 ISO50001 1 ISO45001/

OSHAS18001

GB/T24001-2016 ISO 14001:2015

COD	1-4 1	
		HJ/T 84-2015 65
	1	
		HJ700-2014

2022 62.76%

2022

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2022 1,310 3,046 11.14 9.69 14.41 100%

2022 9

2022 74.15%

2022

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2022 6 “ ”

129.18

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179.92

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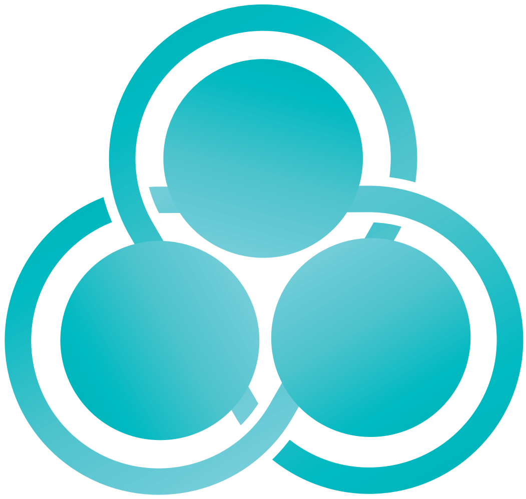
2022

28.20%



23

70% 14 9

400

2022 400

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2017 2022

623

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2022 6

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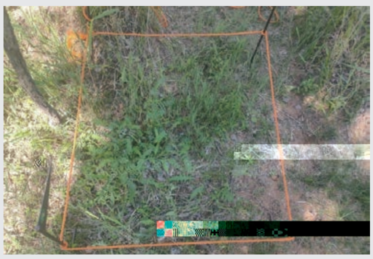
23



“ ”

2022 6
14 6 2022
50,292 100% 5,201
99% 14 6
80%

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2022 1 5 300 1 3
4 3 1


7
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“ ”

2022
100%

100%

44 / “ ”

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96.6 99.7

2022

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2022 2,940 1 1
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80 10 5 “ 2022
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2022

2022 15 480.13

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2022

900

208

6,642

1,570

2022

500

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30%

40%

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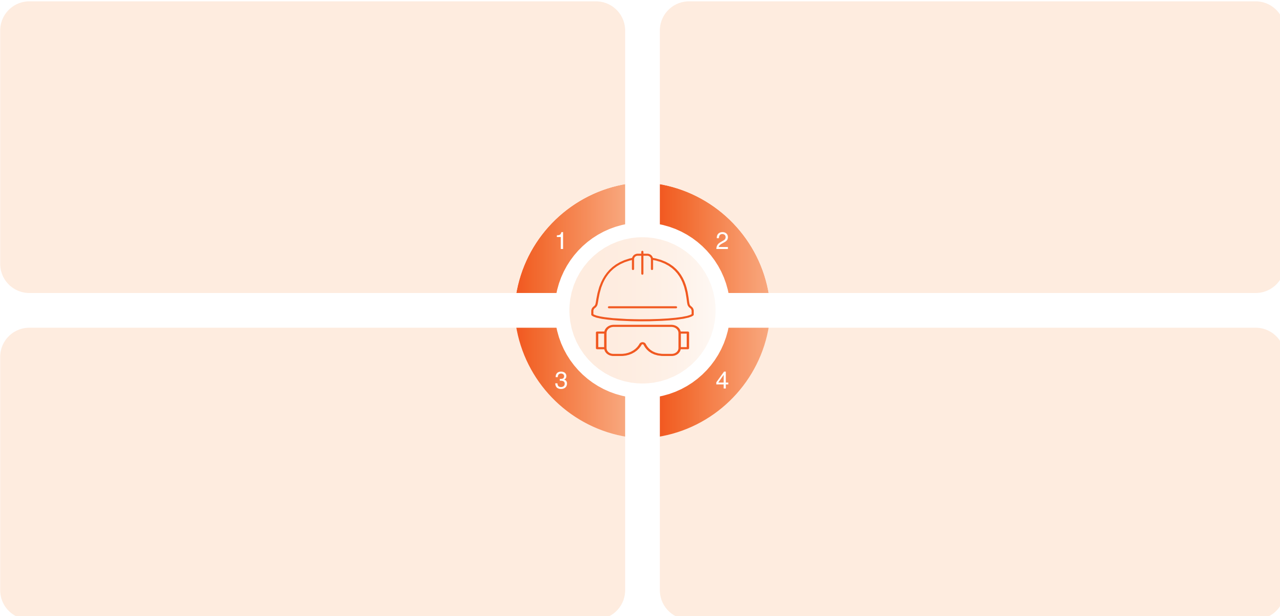
1
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2022

“ ”				
		25		2020~2021
100%	100%	100%	42	

	2016	2017	2018	2019	2020	2021	2022
	0.156	0.106	0.093	0.083	0.058	0.044	0.05236
	0	0.003	0.0126	0	0.0034	0.00597	0.00588

2022

2022

80.8%

2022

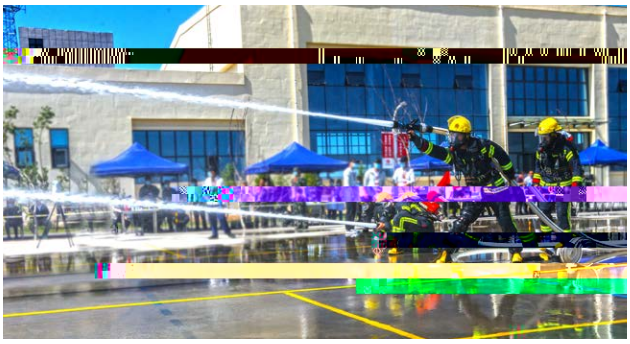
18.79

“ ”

2022 46

2022 624
1,368 2,074

2022 6 10
360 “ ”



“ ”

2022
923 928

“ ”

5.57

“ ”

“ ”

2022

2022

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“ ”

222

2.6

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“ ”

2022 11

4 /

2022 4 20 "
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2022 3,856

2022

" "

2022 11 " "

2022

(SA8000)

2022 228

34,996 47.42

2022

100%

2022

151

2022 “ ” 10

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“ ” 2022
“ ”
“ ”

2022 11 “ ”
500

“ ”

(20%) (40%) (20%)
(20%)

2022 11 48% 4
4 9 3

2022 2.45 8.35%

“ π ”

2022 “ ” “ ” “ • ” “ ” “ ”

“ ”

“ ” “ ” 2022 “ ”

700 45 92

“ ”

2022

100%

2022

100%

52.3%

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2022 11 ESG
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ESG ESG

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(ICMM) 2022

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FPIC

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13

17 12

2022

2022

89.1%

2022 EMM

2,000

82%

“ ”

EMM

EMM

2022

2022 531

2022
3
7,830 29

6,000 120
240

4,700
25 10

600 60 2,000
3 1,000

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2022 11 2022 104
“ ”

2022 11 2022 23.46
362

“ + + ”

3,150

“ ”

2022

2022 11

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“ ”

I ESG

	2020	2021	2022
	13,490	15,861	17,640
	12,668	15,333	17,239
	822	528	401
/	5.78	4.73	5.10
	3,523.00	2,343.78	3,886.96
	2,911.00	1,571.46	3,286.04
	1.16	1.18	1.73
	0.89	0.92	1.25
/	0.065	0.055	0.065
	3.26	3.42	4.52
	1.87	1.94	2.31
/	0.14	0.12	0.12
	0.222	0.19	0.30
	0.147	0.126	0.158
/	0.0108	0.0076	0.0083
	0.086	0.046	0.075
	168.74	159.99	141.37
	25.17	26.65	27.94
	132.82	125.24	105.11
	10.75	8.10	8.31
	126.27	121.65	104.83
	20.23	23.15	25.87
	99.29	92.34	73.91
	6.75	5.51	5.05
(%)	74.84	76.03	74.15
(%)	80.38	86.85	92.59
(%)	74.76	73.73	70.32
(%)	62.79	68.02	60.77

	2020	2021	2022
	4,773.23	5,132.74	5,395.23
/	3.4	3.0	2.38
	3,683.49	3,891.87	3,777.99
	703.93	780.63	1,063.03
	/	/	282.34
	/	/	190.28
/	2.0	0.9	0.89
(%)	41.20	70.04	62.76
(%)	34.10	68.10	58.99
(%)	71.20	85.20	77.08
(%)	/	/	64.38
(%)	/	/	80.77
	1,966.57	3,594.97	3,386.21
	1,254.05	2,650.63	2,228.75
	500.95	664.97	819.43
	/	/	181.77
	/	/	153.68
	2,806.66	1,537.77	2,009.02
	4,608.93	6,202.56	53,193.24
/	0.3196	0.3510	2.34
(%)	96.88	96.92	97.04

	2020	2021	2022
	39.88	40.33	40.37
	8.41	8.05	8.31
	169.06	158.30	170.68
	4,324.04	5,155.47	6,041.39
/	3.05	2.92	2.64
/	307	301	297
	157.24	155.11	179.92
	130.89	118.67	129.18
	92.93	96.18	105.05
	2.65	11.48	12.41
	35.31	11.01	11.72
	11.22	28.22	26.13
	15.13	8.22	24.61
/	10.68	8.51	7.53
(%)	16.76	23.49	28.20
	/	/	546
	20.99	23.45	38.43
	7.54	7.61	12.35
	1,083	9,256	4,545
	4.4	37.7	18.5

	2020	2021	2022
(%)	100	100	100
	22	22	21
	21.49	33.47	54.04
	915	754	900
	198	199	208
	38.15	25.62	18.79
/	0.0034	0.00597	0.00588
	0	0	0
	1	5	4
	1	2	2
	0	3	2

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	2020	2021	2022
	76,182	77,872	83,029
	61,966	64,306	70,029
	14,216	13,566	13,000
	76,182	77,872	83,029
	228	256	234
	3,398	3,025	3,229
	72,556	74,591	79,566
29	8,976	9,041	10,187
30-39	35,000	35,262	35,580
40-49	19,167	18,903	21,007
50	13,039	14,666	16,255
	75,867	77,456	82,585
	4	3	2
	311	413	442
(%)	/	5.30	5.31
	/	3,696	2,963
(%)	/	77.4	89.1
	0	0	0
	/	18,866	13,189
(%)	100	100	100
(%)	100	100	100
	/	17	10
(%)	/	100	100
	949	999	1,173
(%)	1.25	1.28	1.41

	2020	2021	2022
(%)	1.03	0.99	1.17
(%)	2.09	2.67	2.56
29 (%)	1.27	2.07	1.54
30-39 (%)	1.00	1.00	0.73
40-49 (%)	0.60	0.87	0.66
50 (%)	3.85	2.96	3.63
(%)	1.25	1.27	1.40
(%)	0	33.33	33.33
(%)	0	2.91	0.90
	/	26,439	26,207
	74,784	76,239	81,125
	61,089	63,103	68,232
	13,695	13,136	12,893
	220	253	233
	3,303	3,013	3,175
	71,274	72,973	77,717
	670.21	805.28	932.45
	556.56	657.22	776.79
	113.65	148.05	155.66
	3.28	4.02	3.65
	34.11	44.26	44.17
	632.81	756.99	884.64
(%)	98.16	97.90	97.71

	2020	2021	2022
(%)	98.58	98.13	97.43
(%)	96.34	96.83	99.18
(%)	96.49	98.83	99.57
(%)	97.20	99.60	98.33
(%)	98.23	97.83	97.68
	89.60	103.41	114.94
	91.11	102.20	113.85
	82.97	109.13	120.73
	149.29	157.03	156.65
	103.28	146.31	139.12
	88.79	101.49	113.83
	10,927	10,304	11,980
(%)	14.34	13.23	14.43
	/	43,324	50,107
(%)	/	55.63	60.35
/	82.25	99.36	115.92
/	5.69	6.99	9.39
/	5.52	7.06	9.55
	178	389	531
	41,996	51,305	71,825
	300,998	351,464	402,129
	9,668	10,137	9,870
	48,413	154,658	117,544

	2020	2021	2022
	115,371	127,440	118,611
	115,223	127,039	117,896
	68	172	314
	37	104	172
	29	63	132
	11	49	83
	0	1	2
	3	12	12
CEO	0	0	0
	1	1	1
	0	0	0
	8.55	8.55	8.55
	382	237	236
(%)	69.45	69.52	69.52
	0	0	0

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3. 2022 2021

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5. http://www.tanjiaoyi.com/article-4820-1.html 667 60 110 24.455 90 = ×24.455 10

6. = *1,000,000 / OHSAS 18001

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II ESG

	ESG	[1]
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	B8.2	3.5.14 5.2 6.5.4 6.5.7 8.3 8.4 8.8
		2.1.1 2.1.2 2.1.3 2.1.15 2.3.5 3.1.1 3.5.12 6.5.4 6.5.5
	B4.1 B6.3 B7 B7.1 B7.2 B7.3	4.1.1 8.1 8.2
		6.3.3 6.3.13
ESG	A1.5 A1.6 A2.3 A2.4	7.1.3 8.6 8.14
	A1 A1.1 A1.2 A1.5 A4 A4.1	
	A1 A1.1 A1.3 A1.4 A1.5 A1.6 A2 A2.1 A2.3 A3 A3.1	8.1 8.6 8.8 8.9 8.13
	A1 A1.1 A1.2 A1.3 A1.4 A1.5 A1.6 A2 A2.1 A2.3 A3 A3.1	8.1 8.3 8.6 8.8 8.9 8.10 8.12 8.13 8.15
	A2 A2.3 A3 A3.1	8.1 8.3 8.6 8.8 8.9 8.10 8.12 8.15
	B6.1 B6.2 B6.4	8.9 8.13
	B2 B2.1 B2.2 B2.3	8.13 8.14
	B8 B8.1 B8.2	8.1 8.7 8.14 8.15
	B5 B5.1 B5.2 B5.3 B5.4 B2.3	8.6
	B6 B6.2 B6.5	8.1 8.3 8.4 8.6 8.15
ESG		8.1 8.2 8.5 8.8 8.15

[1] 1 ——

III GRI

2022 1 1 2022 12 31 GRI GRI

GRI 1 GRI 1 2021

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GRI 2 2021		P2-3
2-1		P2-3
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2-3		P2-3
2-4		P2-3
2-5		P2-3
2-6		P7-9
2-7	ESG	P82-89
2-8	ESG	P82-89
2-9	——	P14-16
2-10	——	P14-16
2-11	——	P14-16
2-12	——	P14-16
2-13	——	P14-16
2-14	——	P14-16
2-15	ESG	P82-89
2-16	——ESG	P22-27

/			
2-17		——ESG	P22-27
2-18		——ESG	P22-27
2-19		——ESG	P22-27
2-20		——	P14-16
2-21		——	P64-69
2-22		——ESG	P22-27
2-23		——ESG	P22-27
2-24		——ESG	P22-27
2-25		——ESG	P22-27
2-26		——ESG	P22-27
2-27		——	P17-18
2-28		——ESG	P22-27
2-29		——ESG	P22-27
2-30		——	P64-69
GRI 3	2021		
3-1		——ESG	P22-27
3-2		——ESG	P22-27
3-3		——ESG	P22-27
GRI 201			
201-1		——	P73-81
201-2		——	P30-39
201-3		——	P64-69

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GRI 204		
204-1	—	P70-72
GRI 205		
205-1	—	P17-18
205-2	—	P17-18
205-3	—	P17-18
GRI 206		
206-1	—	P70-72
GRI 301		
301-1	ESG	P82-89
GRI 302		
302-1	ESG	P82-89
302-3	ESG	P82-89
302-4	—	P30-39
302-5	—	P40-42
GRI 303		
303-1	—	P46-49
303-2	—	P43-45
303-3	ESG	P82-89
GRI 304		
304-2	—	P46-49
304-3	—	P46-49

/			
GRI 305			
305-1	1	——	P30-39
305-2	2	——	P30-39
305-4		——	P30-39
305-5		——	P30-39
305-7	(NOX) (SOX)	——	P30-39
GRI 306			
306-1		——	P43-45
306-2		——	P43-45
306-3		——	P43-45
306-4		——	P43-45
306-5		——	P43-45
GRI 308			
308-1		——	P70-72
308-2		——	P70-72
GRI 401			
401-1		ESG	P82-89
401-2		——	P64-69
GRI 402			
402-1		——	P64-69

/			
GRI 403			
403-1		—	P58-63
403-2		—	P58-63
403-3		—	P58-63
403-4		—	P58-63
403-5		—	P58-63
403-6		—	P58-63
403-9		ESG	P82-89
403-10		ESG	P82-89
GRI 404			
404-1		ESG	P82-89
404-2		—	P64-69
GRI 405			
405-1		ESG	P82-89
GRI 406			
406-1		—	P64-69
GRI 413			
413-1		—	P73-81
GRI 418			
418-1		—	P52-54

3000 International Standard on Assurance Engagements 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information ESG

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